

Amendments to the Claims

Claims 1-3. (Canceled)

4. (Currently amended) ~~The A rear projection display device according to claim 3, comprising a light source lamp, color splitting means for splitting light emitted from the light source lamp into a plurality of color components, a plurality of liquid crystal panels for optically modulating each color light split by the color splitting means, color synthesizing means for synthesizing each of the color light modulated by the liquid crystal panels, and projection means for projecting image light which is color-synthesized by the color synthesizing means on a screen from slantly above or slantly below,~~

wherein a polarization direction of at least one color component out of the image light irradiated on the screen is parallel to a vertical cross section of the screen, and the polarization direction of the at least one color component is manipulated to reduce reflection on the screen and to improve brightness,

wherein the polarization direction of at least the green component out of the image light irradiated on the screen is parallel to the vertical cross section of the screen,

wherein polarization direction adjusting means is provided for adjusting a polarization direction of at least the green component out of the image light synthesized by the color synthesizing means so that the polarization direction of at least the green component is parallel to the vertical cross section of the screen.

5. (Currently amended) ~~The~~ A rear projection display device according to claim 4, comprising a light source lamp, color splitting means for splitting light emitted from the light source lamp into a plurality of color components, a plurality of liquid crystal panels for optically modulating each color light split by the color splitting means, color synthesizing means for synthesizing each of the color light modulated by the liquid crystal panels, and projection means for projecting image light which is color-synthesized by the color synthesizing means on a screen from slantly above or slantly below,

wherein a polarization direction of at least one color component out of the image light irradiated on the screen is parallel to a vertical cross section of the screen, and the polarization direction of the at least one color component is manipulated to reduce reflection on the screen and to improve brightness,

wherein the polarization direction of at least the green component out of the image light irradiated on the screen is parallel to the vertical cross section of the screen,

wherein polarization direction adjusting means is provided for adjusting a polarization direction of at least the green component out of the image light synthesized by the color synthesizing means so that the polarization direction of at least the green component is parallel to the vertical cross section of the screen,

wherein the polarization direction adjusting means comprises a retardation plate.

6. (Canceled)

7. (Currently amended) ~~The~~ A rear projection display device ~~according to claim 6,~~ comprising a light source lamp, color splitting means for splitting light emitted from the light source lamp into a plurality of color components, a plurality of liquid crystal panels for optically modulating each color light split by the color splitting means, color synthesizing means for synthesizing each of the color light modulated by the liquid crystal panels, and projection means for projecting image light which is color-synthesized by the color synthesizing means on a screen from slantly above or slantly below,

wherein a polarization direction of at least one color component out of the image light irradiated on the screen is parallel to a vertical cross section of the screen, and the polarization direction of the at least one color component is manipulated to reduce reflection on the screen and to improve brightness,

wherein polarization directions of all the color components of the image light irradiated on the screen are parallel to the vertical cross section of the screen,

wherein polarization direction adjusting means is provided for selectively adjusting a color component, of which a polarization direction is orthogonal with the vertical cross section of the screen, out of the image light synthesized by the color synthesizing means so that the polarization direction of the color component is parallel to the vertical cross section of the screen.

8. (Currently amended) ~~The~~ A rear projection display device ~~according to claim 7,~~ comprising a light source lamp, color splitting means for splitting light emitted from the light source lamp into a plurality of color components, a plurality of liquid crystal

panels for optically modulating each color light split by the color splitting means, color synthesizing means for synthesizing each of the color light modulated by the liquid crystal panels, and projection means for projecting image light which is color-synthesized by the color synthesizing means on a screen from slantly above or slantly below,

wherein a polarization direction of at least one color component out of the image light irradiated on the screen is parallel to a vertical cross section of the screen, and the polarization direction of the at least one color component is manipulated to reduce reflection on the screen and to improve brightness,

wherein polarization directions of all the color components of the image light irradiated on the screen are parallel to the vertical cross section of the screen,

wherein polarization direction adjusting means is provided for selectively adjusting a color component, of which a polarization direction is orthogonal with the vertical cross section of the screen, out of the image light synthesized by the color synthesizing means so that the polarization direction of the color component is parallel to the vertical cross section of the screen,

wherein the polarization direction adjusting means comprises a narrow band retardation plate.

Claims 9-16. (Canceled)

17. (Currently amended) ~~The~~ A rear projection display device ~~according to claim 16,~~ comprising a light source lamp, color splitting means for splitting light emitted

from the light source lamp into a plurality of color components, a plurality of liquid crystal panels for optically modulating each color light split by the color splitting means, color synthesizing means for synthesizing each of the color light modulated by the liquid crystal panels, and projection means for projecting image light which is color-synthesized by the color synthesizing means on a screen from a slant side,

wherein a polarization direction of at least one color component out of the image light irradiated on the screen is parallel to a horizontal cross section of the screen, and the polarization direction of the at least one color component is manipulated to reduce reflection on the screen and to improve brightness,

wherein at least one of the color components is green,

wherein polarization direction adjusting means is provided for adjusting a polarization direction of at least the green component out of the image light irradiated on the screen so that the polarization direction of at least the green component is parallel to the horizontal cross section of the screen.

18. (Currently amended) ~~The~~ A rear projection display device according to claim 17, comprising a light source lamp, color splitting means for splitting light emitted from the light source lamp into a plurality of color components, a plurality of liquid crystal panels for optically modulating each color light split by the color splitting means, color synthesizing means for synthesizing each of the color light modulated by the liquid crystal panels, and projection means for projecting image light which is color-synthesized by the color synthesizing means on a screen from a slant side,

wherein a polarization direction of at least one color component out of the image light irradiated on the screen is parallel to a horizontal cross section of the screen, and the polarization direction of the at least one color component is manipulated to reduce reflection on the screen and to improve brightness,

wherein at least one of the color components is green,

wherein polarization direction adjusting means is provided for adjusting a polarization direction of at least the green component out of the image light irradiated on the screen so that the polarization direction of at least the green component is parallel to the horizontal cross section of the screen,

wherein the polarization direction adjusting means comprises a retardation plate.

19. (Canceled)

20. (Currently amended) ~~The~~ A rear projection display device according to claim 19, comprising a light source lamp, color splitting means for splitting light emitted from the light source lamp into a plurality of color components, a plurality of liquid crystal panels for optically modulating each color light split by the color splitting means, color synthesizing means for synthesizing each of the color light modulated by the liquid crystal panels, and projection means for projecting image light which is color-synthesized by the color synthesizing means on a screen from a slant side,

wherein a polarization direction of at least one color component out of the image light irradiated on the screen is parallel to a horizontal cross section of the screen, and

the polarization direction of the at least one color component is manipulated to reduce reflection on the screen and to improve brightness,

wherein polarization directions of all the color components of the image light irradiated on the screen are parallel to the horizontal cross section of the screen,

wherein polarization direction adjusting means is provided for selectively adjusting a color component, of which polarization direction is orthogonal with the horizontal cross section of the screen, out of the image light synthesized by the color synthesizing means so that the polarization direction of the color component is parallel to the horizontal cross section of the screen.

21. (Currently amended) ~~The~~ A rear projection display device according to claim 20, comprising a light source lamp, color splitting means for splitting light emitted from the light source lamp into a plurality of color components, a plurality of liquid crystal panels for optically modulating each color light split by the color splitting means, color synthesizing means for synthesizing each of the color light modulated by the liquid crystal panels, and projection means for projecting image light which is color-synthesized by the color synthesizing means on a screen from a slant side,

wherein a polarization direction of at least one color component out of the image light irradiated on the screen is parallel to a horizontal cross section of the screen, and the polarization direction of the at least one color component is manipulated to reduce reflection on the screen and to improve brightness,

wherein polarization directions of all the color components of the image light irradiated on the screen are parallel to the horizontal cross section of the screen,

wherein polarization direction adjusting means is provided for selectively adjusting a color component, of which polarization direction is orthogonal with the horizontal cross section of the screen, out of the image light synthesized by the color synthesizing means so that the polarization direction of the color component is parallel to the horizontal cross section of the screen,

wherein the polarization direction adjusting means comprises a narrow band retardation plate.

Claims 22-28. (Canceled)

29. (Currently amended) ~~The~~ A rear projection display device according to claim 28, comprising a light source lamp, color splitting means for splitting light emitted from the light source lamp into a plurality of color components, a plurality of liquid crystal panels for optically modulating each color light split by the color splitting means, color synthesizing means for synthesizing each of the color light modulated by the liquid crystal panels, and projection means for slantly projecting image light which is color-synthesized by the color synthesizing means on a screen,

wherein a polarization direction of at least one color component out of the image light irradiated on the screen is parallel to a plane including the image light irradiated on the screen and a normal of the screen, and the polarization direction of the at least one color component is manipulated to reduce reflection on the screen and to improve brightness,

wherein at least one of the color components is green,

wherein polarization direction adjusting means is provided for adjusting a polarization direction of at least the green component out of the image light irradiated on the screen so that the polarization direction of at least the green component is parallel to the plane including the image light irradiated on the screen and the normal of the screen.

30. (Currently amended) ~~The~~ A rear projection display device according to ~~claim 29,~~ comprising a light source lamp, color splitting means for splitting light emitted from the light source lamp into a plurality of color components, a plurality of liquid crystal panels for optically modulating each color light split by the color splitting means, color synthesizing means for synthesizing each of the color light modulated by the liquid crystal panels, and projection means for slantly projecting image light which is color-synthesized by the color synthesizing means on a screen,

wherein a polarization direction of at least one color component out of the image light irradiated on the screen is parallel to a plane including the image light irradiated on the screen and a normal of the screen, and the polarization direction of the at least one color component is manipulated to reduce reflection on the screen and to improve brightness,

wherein at least one of the color components is green,

wherein polarization direction adjusting means is provided for adjusting a polarization direction of at least the green component out of the image light irradiated on the screen so that the polarization direction of at least the green component is parallel

to the plane including the image light irradiated on the screen and the normal of the screen,

wherein the polarization direction adjusting means comprises a retardation plate.

31. (Canceled)

32. (Currently amended) ~~The~~ A rear projection display device according to claim 31, comprising a light source lamp, color splitting means for splitting light emitted from the light source lamp into a plurality of color components, a plurality of liquid crystal panels for optically modulating each color light split by the color splitting means, color synthesizing means for synthesizing each of the color light modulated by the liquid crystal panels, and projection means for slantly projecting image light which is color-synthesized by the color synthesizing means on a screen,

wherein a polarization direction of at least one color component out of the image light irradiated on the screen is parallel to a plane including the image light irradiated on the screen and a normal of the screen, and the polarization direction of the at least one color component is manipulated to reduce reflection on the screen and to improve brightness,

wherein polarization directions of all the color components of the image light irradiated on the screen are parallel to the plane including the image light irradiated on the screen and the normal of the screen,

wherein polarization direction adjusting means is provided for selectively adjusting a color component, of which a polarization direction is orthogonal with the

plane including the image light irradiated on the screen and the normal of the screen, out of the image light synthesized by the color synthesizing means so that the polarization direction of the color component is parallel to the plane.

33. (Currently amended) ~~The~~ A rear projection display device according to ~~claim 32,~~ comprising a light source lamp, color splitting means for splitting light emitted from the light source lamp into a plurality of color components, a plurality of liquid crystal panels for optically modulating each color light split by the color splitting means, color synthesizing means for synthesizing each of the color light modulated by the liquid crystal panels, and projection means for slantly projecting image light which is color-synthesized by the color synthesizing means on a screen,

wherein a polarization direction of at least one color component out of the image light irradiated on the screen is parallel to a plane including the image light irradiated on the screen and a normal of the screen, and the polarization direction of the at least one color component is manipulated to reduce reflection on the screen and to improve brightness,

wherein polarization directions of all the color components of the image light irradiated on the screen are parallel to the plane including the image light irradiated on the screen and the normal of the screen,

wherein polarization direction adjusting means is provided for selectively adjusting a color component, of which a polarization direction is orthogonal with the plane including the image light irradiated on the screen and the normal of the screen,

out of the image light synthesized by the color synthesizing means so that the polarization direction of the color component is parallel to the plane,

wherein the polarization direction adjusting means comprises a narrow band retardation plate.

Claims 34-38. (Canceled)

39. (Previously presented) A rear projection display device comprising:

- a light source lamp,
- color splitting means for splitting light emitted from the light source lamp into three color components of red, green and blue,
- a plurality of liquid crystal panels for optically modulating each color light split by the color splitting means,
- color synthesizing means for synthesizing each of the color light modulated by the liquid crystal panels,
- polarization direction adjusting means for selectively adjusting a color component which is an S-polarized component to a surface of a screen on which image light is irradiated, out of the image light synthesized by the color synthesizing means so that the S-polarized component becomes a P-polarized component to the surface of the screen on which the image light is irradiated, and
- projection means for slantly projecting image light which is color-synthesized by the color synthesizing means on a screen,

wherein all color components out of the image light irradiated on the screen are P-polarized to the surface of the screen on which the image light is irradiated.

40. (Previously presented) The rear projection display device according to claim 39, wherein

the polarization direction adjusting means comprises a narrow band retardation plate.

41. (Previously presented) The rear projection display device according to claim 39, wherein

the relation $i\text{-min} < \alpha < i\text{-max}$ is satisfied, where an angle of a maximum value $i\text{-max}$ and a minimum value $i\text{-min}$ is formed by a normal of a back surface of the screen and a principal ray of the image light irradiated on the back surface of the screen, and an angle α is obtained when the reflectivity of light, which is P-polarized to the surface on which the image light is irradiated, to the back surface of the screen is minimum.

42. (Currently amended) The rear projection display device according to claim ~~[[1]]~~ 39, wherein

the relation $j\text{-min} < \beta < j\text{-max}$ is satisfied, where an angle of a maximum value $j\text{-max}$ and a minimum value $j\text{-min}$ is formed by a normal of a front surface of the screen and a principal ray of the image light irradiated on the front surface of the

screen, and an angle β is obtained when the reflectivity of light, which is P-polarized to the surface of the screen on which the image light is irradiated, to the front surface of the screen is minimum.